REMARKS

Claim 31 has been cancelled in order to simplify the issues in this response, and without prejudice toward future prosecution. Applicants have made no other amendments to the claims. Although the Examiner refers to Claim 22 as pending, Applicants cancelled Claim 22 without prejudice in their response to the Office Action mailed on July 1, 2005. Thus, Claims 1-21 and 23-30 are pending and presented for examination.

Discussion of Rejections Under 35 U.S.C. § 112, First Paragraph

The Examiner rejected Claims 1-30 under 35 U.S.C. § 112, First Paragraph, asserting that the "claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention." Specifically, the Examiner contends the limitation "an expression vector . . . that does not encode a whole tumor associated antigen" is not supported because the asserted supporting paragraph "is completely silent regard [sic] tumor associated antigens that are not SSX-2. Accordingly, said paragraph does not provide support for an amendment broadly reciting that the entire reading frame of the expression vector does not encode a whole tumor associated antigen." Therefore, the Examiner concluded that the previous amendment constituted new matter.

Applicants respectfully disagree with the Examiner's position. The referred-to limitation is supported by the specification and is therefore not new matter. The specification describes the use of partial, or less than whole, sequences of various antigens, for example, epitopes and epitope clusters. In addition to paragraph [0011] that was referenced in the previous response, paragraphs [0006], [0060], [0069], [0072], [0073], [0077], [0082]-[0084], and [0090]-[0091] also provide supporting disclosure. For example, paragraphs [0072] and [0073] describe the problems associated with the use of sequences "that encode whole protein sequences" and contrast that with the benefits of using less than the whole antigen, for example, an epitope cluster as disclosed in the present specification. Paragraph [0069], defines an epitope cluster as "a polypeptide, or a nucleic acid sequence encoding it, that is a *segment* of a native protein sequence" (emphasis added). Paragraph [0069] also distinguishes the epitope density of a cluster compared to the density "within the complete protein sequence." Furthermore, paragraph [0083] lists numerous examples of tumor antigens from which a cluster can be derived. From at least

these disclosures, one of skill in the art would recognize that the inventors were in possession of expression vectors having reading frames that do "not encode a whole tumor associated antigen." Thus, the limitation "reading frame of the expression vector does not encode a whole tumor associated antigen" is fully supported by the specification.

As to Claim 28, Applicants note that the Claim limitation expressly refers to SSX-2 ("wherein the isolated nucleic acid does not encode the complete SSX-2 antigen"). As the Examiner notes, this Claim is supported by at least paragraph [0011].

For at least the reasons stated above, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejection of Claims 1-30 under 35 U.S.C. § 112, First Paragraph.

Discussion of Rejections Under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected Claims 1-30 as ambiguous and unclear in the recitation of a "reading frame that does not encode a whole tumor associated antigen." The Examiner questioned whether the phrase refers "to an entire polypeptide molecule comprising multiple antigenic sites or to individual antigens within a polypeptide molecule." According to the Examiner, the term is not adequately defined in the specification and the art presents differing opinions as to which scenario is descriptive of an "antigen." Applicants provide the following clarification.

Consistent with the specification, the term antigen as used in the instant claims refers to an entire polypeptide molecule rather than to a "minimal" antigen or epitope. As one example of support from the specification for this definition, paragraph [0083] lists numerous antigens that are entire polypeptide molecules. The discussion above in response to the § 112, first paragraph rejection further supports this clarification of the term antigen for the instant claims.

For at least the reasons stated above, Applicants respectfully submit that the claims are clear and definite, and request reconsideration and withdrawal of the Examiner's rejection of Claims 1-30 under 35 U.S.C. § 112, Second Paragraph.

Discussion of Rejection Under 35 U.S.C. § 102(b)

The Examiner rejected Claim 31 under 35 U.S.C. § 102 as being anticipated by Clark et al. (Nature Genetics, 7(4):502-508 (1994)) as evidenced by Ayoub et al. (J. Immunol., 168(4):1717-1722 (2002)).

As mentioned above, Claim 31 has been cancelled without prejudice in order to advance prosecution of this application. Therefore, the rejection is moot.

Conclusion

For the foregoing reasons, it is respectfully submitted that the rejections set forth in the outstanding Office Action have been addressed and that the application is in condition for allowance. Accordingly, Applicants request the expeditious allowance of the pending claims.

The undersigned has made a good faith effort to respond to all of the rejections in the case and to place the claims in condition for immediate allowance. Nevertheless, if any undeveloped issues remain or if any issues require clarification, the Examiner is respectfully requested to call the undersigned to discuss such issues.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 10, 2006

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